

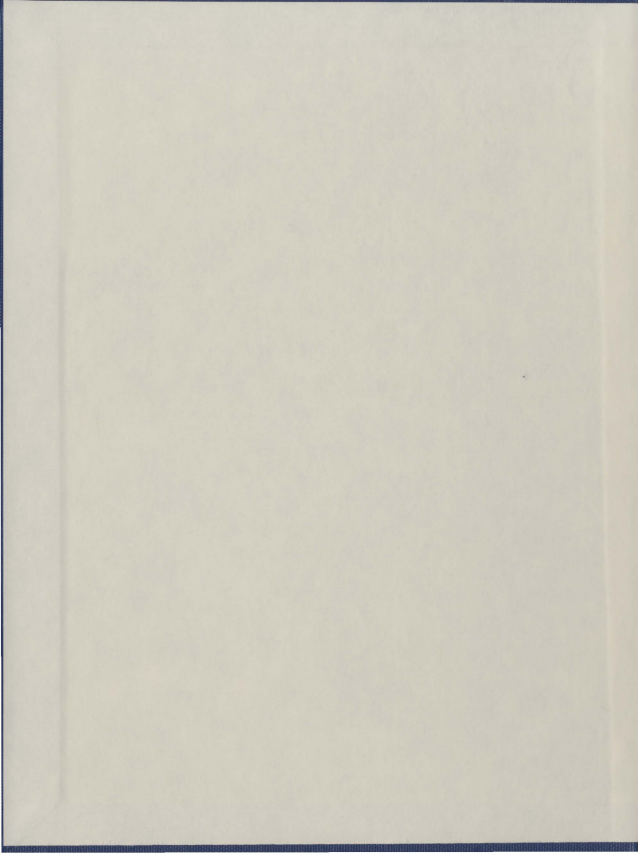
A NEW APPROACH TO ACCESS AND ALLOCATION
IN THE ATLANTIC CANADIAN FISHERY

CENTRE FOR NEWFOUNDLAND STUDIES

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THOMAS DOOLEY





**A NEW APPROACH TO
ACCESS AND ALLOCATION
IN THE ATLANTIC CANADIAN FISHERY**

by

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A major report submitted to the
School of Graduate Studies
in partial fulfilment of the
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ABSTRACT

The allocation of harvesting rights to individuals or fishing companies is arguably the most contentious issue facing fisheries management today. In Atlantic Canada it presents a major challenge to the Department of Fisheries and Oceans (DFO), given the complexity of the fleet structure and with several provincial and territorial jurisdictions involved. In an attempt to partially meet this challenge the Minister of Fisheries and Oceans struck the Independent Panel on Access Criteria (IPAC) in 2001. The Panel was mandated to find a solution to the decision making criteria as it relates to access with regards to ranking or weighting and defining these criteria. The IPAC final report was submitted to the Minister in March of 2002. While the report did identify principles and criteria, it failed to address completely some of the outstanding and fundamental problems associated with this complex issue.

This paper reviews the concept of access and allocation, documents past problems, assesses the IPAC report and presents a model and process, complete with definitions and weighting, as a framework for access and allocation of fisheries resources in Atlantic Canada.

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1.0 Introduction

During the past decade the fishery in Atlantic Canada has gone through a period of significant change. Many of the groundfish stocks which had sustained fishing enterprises and communities for the previous centuries collapsed, and have shown no signs of recovery (FRCC, 2003). While there has been expansion in other sectors, particularly shellfish, the magnitude of these increases in terms of availability of resources falls well short of the volumes harvested when groundfish dominated the fishing industry. Both the Federal and Provincial governments, and the entire fishing industry in Atlantic Canada, continue to grapple with low resource prospects in the groundfish sector and the ongoing problem of capacity reduction in the harvesting and processing sectors. The debate over access and allocation is often intense and has historically been the cause of conflict between users and regions (Hanna, 1994; Hanna and Smith, 1992). Decisions become even more crucial and debate more intense when there is little or no additional growth to allocate (Kirby, 1982).

Canada's fisheries management and administration occur within a distinct legal framework. The *British North American Act* (1867) gave Parliament exclusive authority over seacoast and inland fisheries. Section 34 of the *Fisheries Act* (1985) grants broad authority to federal fishery administration (DFO) for the proper management and control of the sea coast and inland fisheries. The federal minister of fisheries, at his absolute discretion, may issue or cancel fishing licences and thereby limit entry into fisheries and prescribe levels of effort (Steele *et al*, 1992). Such power is extraordinary within the Canadian system of government. As one former Minister of Fisheries and Oceans reported to the Independent Panel on Access Criteria (IPAC), "this absolute discretion confers a great deal of power on the Minister, but also an immense burden" (IPAC, 2002).

Access to and allocation of fish resources remains one of the most difficult and controversial aspects of fisheries management in Canada and abroad (Caddy, 1996).

Historically, allocation of fisheries resources reveals a decided lack of sophistication. From man's earliest existence... fish and game allocation was a function of brute force. In recent times political strength has been substituted for physical strength. (Stroud et al, 1980).

In order to fully appreciate these issues one must first clearly understand the distinction between access and allocation. The Atlantic Fisheries Policy Review, discussion document, "The Management of Fisheries on Canada's Atlantic Coast" defines access as:

the opportunity to harvest or use a fisheries resource, generally permitted by licences or leases granted by the Department of Fisheries and Oceans under the authority of the Minister of Fisheries and Oceans. (DFO, 2001 p. 28).

and allocation as:

the amount or share of a fisheries resource that is assigned or allowable catch that is distributed or assigned by the Minister of Fisheries and Oceans to those permitted to harvest the resource. (DFO, 2001 p.28).

Atlantic Canadian fisheries are diverse in species harvested, gear types used and areas fished. They are pursued in the waters off the provinces of Newfoundland and Labrador, Nova Scotia, New Brunswick, Quebec and Prince Edward Island, as well as the newly established territory of Nunavut. The fisheries have long-term economic importance to the region (Cashin, 1993). The debate over access and allocation is compounded when more than one political jurisdiction is involved (Harris, 1990).

It has been recognized for almost 50 years that the heart of the problem for managing fisheries lies in the "common property" nature of the resource (Hardin, 1968; Parsons 1993; Caddy, 1996).

Governments around the world have responded to the problem of open access with limited entry licencing to prevent the overexploitation characterized by open access (Townsend and Charles, 1997). The establishment of catch limits now commonly referred to as total allowable catch (TAC) and limited entry have been used in Canada, in most fisheries, since the early 1970s (Parsons, 1993). These systems require decisions to be made by the regulatory agencies on access and allocation of fish resources. Under the Canadian system, the process has become a source of conflict between DFO and industry; a conflict which has frustrated and eroded progress on key issues such as conservation and long term sustainability (Blackwood, 1996). Indeed, Ministerial authority means that this conflict often lies on the Minister's desk, where it frequently proves too great a burden (Kenchington, 1998).

The unrestricted use of fish resources, open access, has become recognized as perhaps the greatest threat to fishery sustainability . Indeed, the threat posed by open access was the driving force behind recent United Nations agreements on straddling and highly migratory fishery management. Both international and within national jurisdictions, it is now accepted that, in the interest of sustainability, not everyone can have access to the fishery. The solution to open access conditions lies in specifying use rights, defining who is allowed access to the fishery resources and under what conditions. However, the key question arises: Who is in and who is out? (Charles, 1998).

2.0 Statement of the Research Problem

The access and allocation dilemma continues to preoccupy the fisheries management process in Atlantic Canada. Decisions by the Department of Fisheries and Oceans over the years have caused outrage in various areas of the region (Parsons, 1993). Some of the noted sources of conflict surrounding the access and allocation process are:

- *There is a concern that the objectives or principles that govern allocations are unclear. Factors such as adjacency and historical dependence are taken into account, but there is no consistency in the application of these criteria.*
- *The way that communities or individuals might wish to use fisheries resources can change over time. For example, marine resources and habitats were once almost exclusively used for commercial fishing, but today individuals and businesses are seeking access to the resource for a variety of other uses, including aquaculture, recreational fishing and marine tourism. There are currently no mechanisms in place for discussing and deciding on alternative uses of the resource, apart from direct appeal to the Minister.*
- *There are controversies about access and sharing arrangements throughout the commercial fishery. In some cases, there is a concern about the perceived fairness of particular allocations and/or sharing arrangements, and about their duration. A few allocation arrangements are the focus of continuing disputes between different interests in the commercial fishery.*
- *Because access to wealth in the form of fishing opportunities is distributed at the discretion of the Minister, it is not uncommon for people to try to improve their chances by lobbying the Minister and the Department. This generates criticism that decision making is "political". The current process is seen as creating winners and losers and gives rise to discontent and protests.*
- *The perceived vulnerability of the allocation process to lobbying and the perception that decisions are "political" undermine the integrity of the fisheries management system. The legitimacy and credibility of co-management processes*

such as IFMPs are threatened by widespread cynicism about allocation decisions
(DFO, The Management of Fisheries on Canada's Atlantic Coast 2001 p. 28-29).

Historically, the discontent has centered around high profile fisheries like northern cod which was allocated to many new users in the 1980s (Blackwood, 1996). More recently, decisions surrounding the emergent of a large shrimp resource off the coast of Newfoundland and Labrador has generated much controversy, particularly the allocation of 1500 tonnes of northern shrimp in NAFO Area 3L to a consortium of Prince Edward Island (PEI) companies. This created such a negative reaction in Newfoundland and Labrador that the Minister of Fisheries and Oceans established a special panel to address the issue of resource access in Atlantic Canada.

The Independent Panel on Access Criteria (IPAC) was established by the Ministry of Fisheries and Oceans in June of 2001. The Panel was mandated to provide the Minister with recommendations on decision-making criteria surrounding who should be granted access to a commercial fishery that has undergone a substantial increase in resource abundance or to a new/emerging fishery (IPAC, 2002).

3.0 Paper Organization

In order to review the IPAC report and develop a model for access and allocation decisions, an understanding of the current process is necessary. This paper will review the current criteria used for access and allocation decisions by international bodies and in Canada. The problems associated with the application of this process in Atlantic Canada will be illustrated with examples. This paper will also review the report of the Independent Panel on Access Criteria (IPAC) to the Minister of Fisheries and Oceans and identify the shortcomings of the recommendations in addressing the identified problems with access criteria. A proposed model to guide future decisions on access and allocation in relation to Atlantic Canadian fisheries will be presented as an alternative. Similar to the mandate of the IPAC, the proposed model is only intended to deal with access to new or expanding fisheries. Past decisions on access and allocation caused great debate, however, renewing the debate over these issues will not serve a useful purpose. The go forward model will include defined criteria for access and a weighting of these criteria to determine allocation.

4.0 Current Access and Allocation Criteria

4.1 Global Perspective:

The allocation of the world's marine resources has been a major issue for centuries and was the underlying reason behind the United Nations Convention on the Law of the Sea (Parsons, 1993). In 1983, the Food and Agriculture Organization (FAO) of the United Nations, recognizing the dilemma of access and allocation decisions surrounding marine species, cited the following five criteria for resource allocation:

1. *Historic Performance - The historic participation of the various fleets should be taken into account in allocating portions of the Total Allowable Catch (TAC).*
2. *Mobility - Artisanal and small boat fishers have limited range of mobility and therefore often provided preferential treatment in allocation.*
3. *Adjacency - Fishers who live closest to the area of distribution of the resource are given preferential access and allocation.*
4. *Economic Dependency - The dependency of various fleets on particular stock(s) is a factor in allocation of additional resources.*
5. *Stability - It is desirable to have stability in allocation and access to allow for planning of investment and to stabilize income and employment levels. (Troade, 1983 p.58)*

4.2 Regional Perspective

The Northwest Atlantic Fisheries Organization (NAFO) was established in 1978 as the regional fisheries organization responsible for the management of fish stocks on the high seas of the Northwest Atlantic in what is known as the NAFO Regulatory Area (NRA). NAFO has three

generally accepted access and allocation criteria: zonal attachment; coastal state consideration; and catch history. These criteria are outlined in Article XI.4 of the NAFO Convention:

“Proposals adapted by the Commission for the allocation of catches in the Regulatory Area shall take into account the interest of the Commission members whose vessels have traditionally fished within that area and in the allocation of catches from the Grand Bank and the Flemish Cap, Commission members shall give special consideration to the Contracting Party whose coastal communities are primarily dependent on the fishing for stocks related to those fishing banks and which has undertaken extensive efforts to ensure the conservation of such stocks through international action, in particular, by providing surveillance and inspection of international fisheries on these banks under an international scheme of joint enforcement.” (NAFO, 2000 p.18).

These criteria are not well defined or weighted which has created difficulty in dealing with access and allocation within NAFO. As a result a Working Group of the Fisheries Commission, which is responsible for fisheries management in the NAFO Regulatory Area, was established in 1999. Despite several meetings of the Working Group, little progress has been made in these key areas. The Fisheries Commission in September of 2002 asked the Working Group to reconvene and:

- a. *consider the issue of allocating fishing rights within NAFO and, if necessary, develop appropriate options, taking into account the current allocation practice within NAFO, the interests of all Contracting Parties, the relevant provisions of the NAFO Convention, previous reports of the Working Group on Allocation of Fishing Rights to Contracting Parties of NAFO and any other applicable international agreement as well as the need for NAFO to function effectively.*
- b. *develop options whose terms are explicit and predictable for allocation to Contracting Parties from current fisheries with NAFO TACs, fisheries previously not subject to NAFO TACs, new fisheries, closed fisheries being reopened, and*

fisheries for which fishing rights are or will be allocated in terms other than quotas (e.g. effort limits). (NAFO, 2002).

4.3 National Perspective

In an attempt to reduce annual conflicts over access and allocation, Canada developed a set of allocation principles in the early 1980s, and articulated them in the annual Groundfish Management Plans.

Allocation of fisheries resources will be on the basis of equity taking into account adjacency to the resource, the relative dependency of coastal communities and the various fleet sectors upon a given resource and economic efficiency and fleet mobility (Atlantic Groundfish Management Plan, 1984).

None of these criteria, however, have ever been clearly defined in terms of their application in access or allocation decisions. This has lead some to conclude that these principles were not always adhered to or applied consistently on a regional basis within Atlantic Canada (Blackwood, 1996).

It is apparent that the policies enunciated by the Department of Fisheries and Oceans and expressed in the Groundfish Management Plan's have been only words on paper to be ignored at will. (Steele et al, 1992).

Sharing principles for other species have also been identified in management plans. The 1997-1999 Intragrated Northern Shrimp Management Plan identified the following sharing principles for that resource:

- *Conservation of the resource is paramount.*
- *Viability of the existing enterprises will not be jeopardized.*

- *Adjacency will be respected, which means those who live closest to the resource will have priority in fishing it.*
- *Priority will be given to increasing participation of aboriginal people in the established commercial fishery.*
- *Priority access will be given to inshore vessels less than 65' in length. Access by midshore and offshore fleets will be considered for more northerly areas.*
- *Existing licence holders will receive some of the increase in TACs.*
- *Employment will be maximized in both the harvesting and processing sectors where possible. (DFO, 1997 p.19).*

Conservation, aboriginal fisheries for food, social and ceremonial purposes, adjacency to the resource and community dependence appear to be the only dominant criteria in resource allocation in Atlantic Canada. Beyond these general considerations, the criteria for allocating access among various groups tend to be blurred (Parsons, 1993).

5.0 The Application of the Current Access and Allocation Criteria in Canada

The current application of the criteria in Canada, for both access and allocation decisions, often creates controversy. There are several reasons for this, but three in particular stand out. A major problem is that the criteria have never been defined. As previously stated, several criteria have been cited in Canada, however, the definition of these criteria is lacking. There is currently no accepted or consistent definition of adjacency in terms of fisheries in Atlantic Canada. Furthermore, there is no reference period to define historic dependence or participation, while other criteria, such as fairness and equity are difficult to define and are often open to subjective interpretation.

Consistency of application and weighting are two other problem areas in the current application of the criteria. A clear example of inconsistent application and weighing of the same criteria can be demonstrated from two decisions made by the Minister of Fisheries and Oceans in 2000.

5.1 Northern Shrimp in 3L

On June 15, 2000 the Minister of Fisheries and Oceans announced that he was issuing a temporary allocation of Northern shrimp in NAFO area 3L to a Prince Edward Island (P.E.I.) Consortium, Polar Seafoods. The 3L shrimp fishery is an expansion of the northern shrimp fishery, and because it is a straddling stock is managed by the Northwest Atlantic Fisheries Organization (NAFO). Canada had negotiated for 5,000 tonnes of a 6,000 tonne TAC during the 1999 NAFO Annual Meeting.

In terms of adjacency, Newfoundland and Labrador is the only Canadian province directly contiguous to NAFO area 3L. The Minister granted 60 percent of the Canadian quota to interests from this province, while P.E.I., which is not contiguous, had no shrimp fleet and no history of fishing northern shrimp, received 30 percent of the Canadian allocation. Fleets from Nova Scotia, New Brunswick and Quebec, which fish shrimp immediately to the north, received the remaining 10 percent.

5.2 Northern Turbot in 0A

Only two months later, on August 16, 2000, the Minister of Fisheries and Oceans announced a new turbot fishery in NAFO Davis Strait (NAFO Area 0A) for 2001. The NAFO Science Council recommended an additional TAC be implemented for the offshore area of division 0A + 1A with a catch of up to 4,000 tonnes in 2001. This was an expansion of the existing northern turbot fishery. The Minister announced that Nunavut, the only adjacent territory, would receive all of the Canadian allocation of turbot in division 0A. Fleets from Newfoundland and Nova Scotia that fished turbot in division 0B, immediately to the south, did not receive any access to this resource. (See Appendix A and B for news releases on these decisions).

5.3 The Lack of Consistency and Transparency

The circumstances surrounding the 3L shrimp and 0A turbot were quite similar. Both dealt with new fisheries in areas where there was no doubt as to which province or territory was adjacent to the resource. However, in terms of the turbot allocation, Nunavut received 100 percent of the turbot quota, based primarily on the fact that they are adjacent to the resource, whereas, Newfoundland and Labrador, the only adjacent province to 3L, received 60 percent of the Canadian shrimp quota in 3L. In the case of 3L shrimp the fleets which fished the same species immediately to the north received 10 percent, while in the case of 0A turbot those fishing the same species immediately to the south received 0 percent. These two decisions demonstrate how the fundamental criteria can be applied and weighted inconsistently in what would have to be considered two very similar situations.

Perhaps the decision to grant Nunavut 100% of the turbot quota in 0A is related to their land claims agreement or aboriginal rights, however, this was never articulated to the fishing industry or other jurisdictions, leaving no alternative but to speculate as to the rationale.

The decision to grant P.E.I. access to 3L shrimp also demonstrates the lack of clarity and transparency which exists around access and allocation issues in Atlantic Canada.

It is impossible to rationalize the decision to grant P.E.I. access, based on the sharing principles described in the previous section (pages 9 and 10). P.E.I. is clearly not adjacent to NAFO Division 3L. The allocation is harvested by an existing offshore operator, therefore it did not recognize priority for the less than 65' sector, nor did it maximize employment. Although this allocation would be fished by an existing operator, the access was granted to a new user not an existing licence holder with no aboriginal people associated with this new user. Adding further to the difficulty in justifying the decision based on stated DFO policy, was the fact that the proposed access for PEI was generally opposed by the Northern Shrimp Advisory Committee (Northern Shrimp Advisory Committee Minutes, 2000), yet access was provided and a 3 year annual allocation of 1,500 tonnes was granted.

The purpose of this example is not to highlight whether or not it was right or wrong to grant PEI access to Northern shrimp, but rather to illustrate the problems and difficulties that exist within the current access and allocation process in Atlantic Canada.

The Northern shrimp case provided the most striking example the Panel encountered of lack of transparency in implementing access criteria. This lack of transparency created a perception of access criteria being applied in a manner so inconsistent as to appear to be capricious. (IPAC, 2002: p.25).

The impact of such an approach to management decisions is compounded as the fishing industry is generally characterized by a high level of uncertainty and instability by nature. Resources often fluctuate between cycles of “boom and bust” and markets can be affected by many uncontrollable circumstances or events. Sound resource management should strive, therefore, to provide some stability in such an industry. The current access and allocation process, however, appears to do just the opposite; further adding to the uncertainty surrounding the industry. Ironically, the DFO report “A Discussion Document on Policy Direction and Principles” states that it is important to establish clear and consistent rules and procedures for making allocation decisions (DFO, 2001). All too often, allocation decisions among user groups in Canada are

made on the basis of political expediency rather than on a clear understanding of goals and objectives (Harris, 1990).

6.0 Independent Panel on Access Criteria

6.1 Establishment of IPAC

The reaction from the Newfoundland and Labrador government, industry and the general public was so severe to the northern shrimp allocation to PEI, that the Minister of Fisheries and Oceans established the Independent Panel on Access Criteria (IPAC) on June 28, 2001. The minister mandated the Panel to find a solution to the following problem:

The current criteria that govern decision-making when providing access to a new or additional entrants in a commercial fishery that has undergone substantial increase in resource abundance or landed value, or in a new or emerging fishery (Phase III Commercial Licenses), remain poorly defined. Furthermore, the relative ranking or weight of each criterion in the decision-making process is largely unknown and the process for making these decisions is unclear. (IPAC, 2002: p.1).

The IPAC interpreted its mandate to mean it must examine criteria for granting access to two types of fisheries: new or emerging fisheries and established (commercial) fisheries experiencing substantial increase in abundance and/or landed value. The Panel participated in two briefing sessions in Ottawa and received volumes of background reports and documents. From August through October 2001, sixty-six consultation meetings were held throughout Atlantic Canada, Nunavut and Quebec. Those consulted included fisheries organizations, processors organizations, employees of fish plants, unions, recreational fishing and aquaculture groups, officials and ministers from provincial and territorial governments, DFO officials and representatives of Aboriginal peoples (IPAC, 2002). Not surprisingly, IPAC was presented with a wide range of views and opinions during the process. The final report was presented to the Minister in March of 2002.

6.2 IPAC Recommendations

The Panel recommended three overriding principles for access in the following order of priority:

1. Conservation

2. Recognition of Aboriginal and Treaty rights
3. Equity

The Panel then went on to recommend four access criteria with the following ranking of importance:

1. Conservation
2. Adjacency
3. Historical Dependence
4. Economic Viability.

While it is generally impossible to argue with conservation as underlying principle in any fisheries management decisions, its use as an access criterion is less clear. The Panel proposed the following definition of the conservation criterion:

The conservation criterion requires that decisions regarding access promote conservation, not only of discrete stocks, but of fish habitat and the ecosystem as a whole. The application of the criterion requires that priority be given to environmentally responsible fishers engaging in sustainable practices, subject to verifiable assessment based on past practice, susceptibility to effective monitoring, direct and indirect contribution to the enhancement of knowledge and other factors related to conservation. In view of this preeminence as a principle underlying Canadian fisheries management, the conservation criterion should be applied to all access decisions independently of any other criteria which might also be appropriate (IPAC, 2002: p.51).

The Panel recognizes that the application of conservation as an explicit criterion requires a judgement by the regulating body make access decisions. Such judgements of conservation will often be difficult to justify in an industry often characterized by high levels of uncertainty associated with the impacts of various gear types and fishing practices. The Fisheries Resource Conservation Council of Canada (FRCC) concluded that:

There are many concerns, many possible problems, many things that can be done and much that requires further work when considering how the activities of harvesting Canada's groundfish resources relate to the goals of rational and sustainable use. (FRCC, 1997: p. 24).

Clearly the recognition of aboriginal and treaty rights would have to be included in any access and allocation process. Court decisions have clarified certain Aboriginal and treaty rights related to access to the fisheries. Decisions will be made in a way that is consistent with the constitutional protection provided to Aboriginal and treaty rights by section 35 of the *Constitutional Act, 1982* (DFO, 2004: p.5). The application of these rights therefore must take precedent when dealing with access and allocation. How to apply these rights in terms of number of participants and amount of resource is a very complicated issues and will not be discussed in this paper. The process outline in the following pages is meant to apply after these obligations are addressed.

The third overall principle IPAC promotes is equity on two levels. The first at a procedural level, is for fair and consistent application of criteria through a decision making framework that is open, transparent and accountable. Clearly, this is necessary to address some of the shortcomings of the existing process. The use of equity at a substantive level without a clear definition may not be as helpful in advancing the access process. Simply stating that resource access must not be done in a way that creates excessive interpersonal or inter-regional disparities will again require an interpretation by the decision making body as to what constitutes "excessive disparity". An overriding principle which is key to access decisions should provide more clear direction.

6.3 IPAC Definition of Criteria

The Panel put forward the following definitions of the three access criteria:

1. Adjacency

The adjacency criterion requires that priority of access should be granted to those who are closest to the fishery resource in question. The adjacency criterion is based on the explicit premise that those coastal fishing communities and fishers in the closest proximity to a given fishery should gain the greatest benefit from it, and on the implicit assumption that access based on adjacency will promote values of local stewardship and local economic development. In the case of near-shore and inshore fisheries, and sedentary species, the application of adjacency as the sole criterion is most compelling. However, as the fishery moves to the mid-shore and offshore, and as the species fished become more highly migratory and mobile, adjacency as the only criterion for decisions regarding access becomes harder to justify. In such cases, adjacency cannot serve as the exclusive criterion for granting access, but must be weighed along with other criteria, including historic dependence, in particular. (IPAC, 2002: p.49-50)

2. Historic dependence

The historic dependence criterion requires that priority of access be granted to fishers who have historically participated in and relied upon a particular fishery, including those who developed the fishery. Depending on the nature and history of the fishery, the requisite period of dependence can vary from a few years to many decades. The historic dependence criterion is based on the premise that fishers who have historically fished a particular stock should enjoy privileged access to that resource, to ensure their continued economic stability and viability, as well as that of the coastal communities from which they come. The historic dependence criterion is most compelling when applied to a particular species that has been fished over a significant period. When the reliance on a stock is relatively recent, or when the historic dependence is to fishing waters or the fishery generally rather than to a particular species, other criteria such as adjacency may be more applicable. (IPAC, 2002: p.50)

3. Economic viability

The economic viability criterion requires that decisions regarding access promote, rather than compromise, the economic viability of existing participants in a particular fishery,

as well as that of potential new entrants to that fishery. The economic viability criterion is based on the premise that decisions regarding access should contribute to the economic resiliency and stability of individual fishers and of the fishing industry as a whole. At the level of the fishing enterprise, economic viability focuses on factors such as capacity to fish, ability to comply with last-in-first-out rules and sound business planning. At a broader level, economic viability looks to factors such as relative economic return and value-added to the fishery, as well as at stability of employment in the processing sector and economic benefits to dependent coastal communities. Properly applied, economic viability should complement other access criteria in ensuring an economically and environmentally sustainable fishery (IPAC 2002: p.50-51).

6.4 Shortcomings of the IPAC Recommendations

The Panel concluded that it was impossible to provide more precise definitions which were universally acceptable and applicable. The failure of IPAC to provide clearly defined criteria must be considered a disappointment. These nebulous definitions of the criteria leave room for questions and interpretation and thus the necessary decision making framework to prevent many of the disputes which surround access to Atlantic Canadian fisheries is not established.

The Panel's definition of adjacency, which states that as fisheries move to midshore and offshore areas the adjacency principle (criterion) diminishes in importance, raises a number of questions. At what point does a fishery move from the inshore to the midshore? How much does its importance diminish and does it continue to diminish as fleets continue to move offshore? The IPAC report offers no clarification to these very important questions. The fact that many individual fish stocks, such as northern cod, migrate between the inshore and the offshore (Harris, 1990; Blackwood, 1996) makes it even more difficult to apply the adjacency criterion as defined by the IPAC for similar type stocks.

The IPAC report suggests that the historic dependence criterion is most compelling when applied to a particular species that has been fished over a significant period. Failure to give any

indication of what constitutes a “significant period” creates additional uncertainty. Such an omission makes it difficult to know when and where to apply this criterion.

While it must be acknowledged that the IPAC was given a challenging issue, the Panel’s failure to provide clarity of definition to the recommended criteria is problematic. With the exception of securing additional Aboriginal participation in Atlantic Canadian fisheries, it would appear that the report’s recommendations puts the Minister of Fisheries and Oceans where he has always been, having to make a final decision without the benefit of a well defined framework when facing conflicting arguments from various interest groups. Thus DFO will continue with the process of “muddling through” (Krueger and Mitchell 1977; Blackwood, 1996). The remainder of this paper will propose a model for access and allocation which will define the criteria and provide a process framework.

7.0 A New Model for Access and Allocation

7.1 Establishing the Criteria

The United Nations Convention on Law of the Sea (UNCLOS) clearly uses adjacency as its first criterion in establishing state boundaries at sea. The 12 mile territorial limit (Articles 3-16), the 24 mile contiguous zone (article 34) and the Exclusive Economic Zones (EEZ) (Articles 55-75) were established based on waters adjacent to coastal states. The Federal Government has promoted the use of adjacency extensively in Canada and other jurisdictions and cited it time after time as a policy in domestic fisheries management. Almost every major task force and panel which has examined fisheries management in Atlantic Canada has confirmed and supported its use as a guiding principle for access and allocation. The following examples illustrate this fact:

In general, and not with standing the fact that marine resources have been determined constitutionally to be a common property resource, the principle of adjacency has been accepted by Canada and, indeed, by the international community (Harris, 1990: p. 105).

Those adjacent to the resource should have a priority for new access (DFO, 2001).

....certain fundamental principles underlie the sharing of the increase in the 1997 northern shrimp TAC. One of the most important is adjacency. (DFO, 1997).

The following are proposed as a list of socio-economic criteria to guide management of the level and type of participation in this fishery; the principle of historical dependency and adjacency should be continued.... (Dunne, 1990: p.14).

This principle ensures that those living closest to the resource are the primary beneficiaries of opportunities arising from these resources.

Another criterion which is clearly accepted domestically and internationally is historical participation. Those who have a history of landings in various fisheries should benefit if the resources expand. This has been clearly demonstrated in section 4.0 (page 7), "Current Access and Allocation Criteria". The following further identifies the principle of adjacency and historical participation as fundamental access criteria in fisheries management:

There are...two general principles...The first one is in giving priority to those Canadian fishermen who traditionally have depended on particular fish stocks for fishing. The second one should be indicated as the principle of priority of access to fisheries resources to those closest or adjacent to these particular resources. (Ferguson, 1986).

Historical catches are the bases for which the European Commission allocates resources to it's member states outside the sovereign inshore 12 mile limit of particular member states:

The allocation of a quota is still subject to the principle of relative stability whereby total allowable catches for any particular fishing area are distributed according to a fleet's history of fishing in that area. (Attwooll, 2001).

A third criterion which must be included as a fundamental principle for access and allocation is community dependency. Commercial fishing can generate significant community dependence. Historically, the settlement and survival of many coastal communities was linked to certain fish stocks, particularly in respect to northern cod on the east coast of Newfoundland and Labrador. (Harris, 1990; Parsons, 1993; Blackwood, 1996). Allocations and access decisions in existing fisheries should ensure, if possible, the viability of such communities. The Independent Review of the State of the Northern Cod highlighted this point, and noted that Canada has officially adapted a policy that would take this into account:

That Canada officially adopt a policy analogous to the Hague Preferences that would take into account... both of the principle contiguity and the vital needs of particular

communities particularly dependent upon fishing and industries allied thereto. (Harris, 1990: p152).

The Task Force on Incomes and Adjustments in the Atlantic Canadian Fishery further linked community and regional dependency with access:

The Task Force believes that coastal regions and communities with a strong historic role in the development and exploitation of certain fish stocks should have some form of priority access to those stocks. (Cashin, 1993: p.64).

7.2 Definition and Application of Criteria

Adjacency, historic participation and community dependency have evolved in Canada as access and allocation criteria since the inception of Atlantic Groundfish Plans in the late 1970s. (Parsons, 1993)

In order to apply such criteria, however, they must be defined. As previously stated these principles are commonly cited and accepted but yet they have not been defined in terms of Canadian fisheries management.

Websters Ninth New Collegiate Dictionary defines adjacency as "having a common endpoint or border." The following proposed definition of adjacency, from a fisheries perspective, takes into account this definition, as well as the geographic management units for various fish stocks in Atlantic Canada.

- ▶ When any border of a management unit is defined by a land area, that land area is "adjacent" to the management unit. Where no border of a management unit is defined by land, then the land area geographically closest to the management unit would be considered to be in "proximity" to that management unit.

Conflict over access and allocation in Atlantic Canada often exists at the provincial level (Parsons, 1993), therefore, this definition is used to determine which province(s)/territory is adjacent to which management units. The NAFO areas are used as the groundfish management units in Atlantic Canada (e.g., 2J3KL cod; 4RST turbot). This application clearly determines which provinces are adjacent to each NAFO areas and thus which are adjacent to each groundfish stock managed within these areas.

Table 1. Provincially based Adjacency to NAFO Areas

NAFO Area	Province/Territory with Adjacency
0A	Nunavut
0B	Nunavut
2G	Newfoundland & Labrador
2H	Newfoundland & Labrador
2J	Newfoundland & Labrador
3K	Newfoundland & Labrador
3L	Newfoundland & Labrador
3Pn	Newfoundland & Labrador
3Ps	Newfoundland and Labrador
4R	Newfoundland & Labrador
4S	Quebec
4T	Quebec, Nova Scotia, New Brunswick & Prince Edward Island
4Vn	Nova Scotia
4W	Nova Scotia
4X	Nova Scotia & New Brunswick

All NAFO areas within Canadian waters, with the exception of 3N, 3O and 4Vs, have part of their boundary defined by land. This leaves only NAFO areas 3O, 3N and 4Vs with no province(s)/territory being adjacent. The province which is geographically closest, however, is easily identified. Areas 3N and 3O are closest to Newfoundland and Labrador, while 4Vs is geographically closest to Nova Scotia. Although these provinces are clearly closest, they can not be considered adjacent according to the definition presented on page 22. Given that there is an overall objective for those closest to the resource to benefit then proximity to the resource has to be recognized. A fourth criterion of *proximity*, is therefore introduced, which will only to be applied when adjacency does not exist.

Figure 1: NAFO Areas

NAFO Area	Province/Territory in Proximity
3N	Newfoundland & Labrador
30	Newfoundland & Labrador
4Vs	Nova Scotia

Many shellfish stocks are managed using species specific geographical units such as Shrimp Fishing Areas (SFAs) or Crab Fishing Areas (CFAs). The application of the proposed definition of adjacency and proximity would be applied to these areas in the exact same manner. Using

northern shrimp as an example, Nunavut is adjacent to SFA 0, SFA 2 and in proximity to SFA 1; Quebec and Nunavut are adjacent to SFA 3; and Newfoundland and Labrador is adjacent to SFAs 4-7 (See Figure 2).

Now that the criteria of adjacency and proximity have been defined, historical participation and community dependence must also be defined if they are to be used effectively and consistently as criteria. Historical participation, for the purposes of this model, entails those fleets with a history of harvesting a particular stock. In order for a fleet to claim historical participation it must demonstrate a catch history in that fishery (landing levels and time frame over which the involvement must take place would have to be determined).

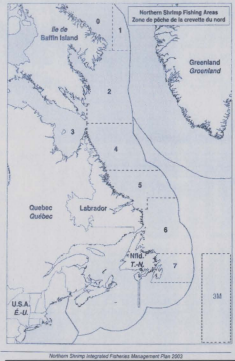


Figure 2: Shrimp Fishing Areas

Community dependence has also been identified as a criterion for access and allocation. This is reflective of those communities that have a history of processing resources from a particular stock. This is not to suggest that quotas necessarily be granted to these communities. However, allocations should be made so there is relative security for those individuals in the processing sector of the industry, who have been historically dependent on certain resources share in the benefits from the growth of these stocks. Alaska has used the concept of Community Development Quotas (CDQ's) as a mechanism to ensure stability for coastal communities. This program provides 7.5% of the Alaskan pollock quota directly to communities. The village themselves would not to catch and process the pollack, but could enter into ventures with existing companies who would buy the quota from the community corporation (Matsen,1993).

Similar to adjacency, situations exist where historical participation and community dependence cannot be determined, specifically in new fisheries. If there has not been a fishery, clearly no group, community or fleet can claim historical participation or dependence. Under these circumstances the process should assign to individuals and to groups the right to fish in certain locations, generally based on long standing tradition ("customary usage"). This system, which can provide relatively stable social support tools of fisheries management, are more prevalent globally than is reflected in the fishery literature (Townsend and Charles, 1997). Therefore, a fifth criterion should be used in the access and allocation process, *historical attachment* to an area. Similar to historic participation, a fleet must be able to demonstrate a particular level of activity to claim historic attachment to an area (again minimum level and qualifying time frame would have to be determined).

This criteria is also supported by the FAO Code of Conduct for Responsible Fisheries which states that:

States should appropriately protect the rights of fishers and fishworkers, to secure just livelihood, as well as preferential access, where appropriate, to traditional fishing grounds and resources in the waters under their national jurisdiction. (FAO, 1995: article 7.6.6).

The following five access criteria have now been identified and defined for use in the Access and Allocation Model:

1. *Adjacency*
2. *Proximity*
3. *Historical Participation in a fishery*
4. *Community Dependence*
5. *Historical Attachment to an Area*

These criteria take into account those closest to the resource, those who have traditionally fished both the stock and the area, as well as those who have been involved in land based processing

activity. It could easily be argued there are no other reasons to provide access to other groups in a region such as Atlantic Canada, where an overcapacity exists in both the harvesting and processing sectors (Cashin, 1993).

7.3 Types of Fisheries

Adjacency has been demonstrated to be the most widely accepted criterion for access and allocation and its existence is not influenced by past policy decisions. Many have argued that past decisions granting access to certain groups/fleets should not have occurred (Maloney, 1990; Blackwood, 1996), yet these decisions have provided them with the opportunity to build attachment, dependence and history to certain stocks, species or areas. These criteria, therefore, should carry less weight. Given its importance and the fact adjacency can not be disputed, if the definition provided on page 22 is applied, fisheries where adjacency is determined to exist should be treated differently from those where it is not. This is perhaps similar to the IPAC idea of adjacency becoming less important as fisheries move offshore. The results of this application are the following four types of fisheries in the model rather than the two types as identified by the IPAC:

1. New Fishery/Adjacency
2. New Fishery/No Adjacency
3. Expanding Fishery/Adjacency
4. Expanding Fishery/No Adjacency

7.4 Weighting the Criteria

The DFO and its advisory bodies have considered a list of various criteria for access, but the department has set no specific weight on the different elements, thus allowing for arguments on allocation from all directions (Gough, 2001). The weighting of each criterion will vary depending on which of the four types of fisheries is being considered. The easiest of these to consider is a **new fishery with adjacency**. Obviously, in this type of fishery no form of historic participation, attachment or dependence exists, therefore adjacency can be used to determine those with access. Specifically interests from the province(s)/territory deemed adjacent can be

allocated one hundred percent of the available resource as nonadjacent interests have no history or attachment. In fact, this would be consistent with the Nunavut allocation of OA turbot in 2000.

When adjacency cannot be determined, the proximity criterion is applied. The model, however, applies lower weighting to proximity than adjacency for reason already discussed. In a **new fishery with no adjacency**, only the criteria of proximity and historical attachment to the area can be applied. Obviously in this circumstance, the adjacency, historical participation and community dependency criteria do not exist. The weighting, and hence the allocation is to be split equally between the two criteria which do apply; proximity and historical attachment. Those in the province deemed closest to the area receive fifty percent of the available resource and those that have traditionally harvested the waters in which the new opportunity now exists receive the other fifty percent. This could result in the granting of access to those from only one province, if fleets from other provinces have no history in those particular waters.

The historically linked criteria come into play in both types of existing fishery. In **expanding existing fisheries with adjacency**, adjacency remains the primary criterion for access and allocation. A weighting of sixty percent of the additional available resource is to be allocated to those adjacent. Given that in this type of fishery there is established historical participation and community dependence, the remaining forty percent is to be split equally between the existing participants and community dependent interests, thereby ensuring that those currently attached to a particular fishery, share in the benefits of the increase.

The fourth and final type of fishery which the model considers is an **expanding existing fishery with no adjacency**. In this type of fishery, historical participation and community dependence clearly exist, and therefore, accounts for the majority (80%) of the allocation of additional available resource. An equal weighting (twenty percent) is applied to these criterion. This provides equal benefits to those who have traditionally been involved in the harvesting and processing of the stock in question. The final 20% available in this fishery is applied based on the proximity

criterion. Meaning that 20% of the increase is made available to other interests in the province deemed closest to the resource.

7.5 The Model

An access and allocation model can be developed by using the types of fisheries, criteria and weighting described above.

Access and Allocation Model

	Adjacency	Non-Adjacency
New Fishery	Adjacency (100%)	Proximity/Those Closest(50%) Historical Attachment to the Area(50%)
Expansion of Existing Fishery	Adjacency(60%) Historical Participation(20%) Community Dependence(20%)	Proximity/Those Closest(20%) Historical Participation(40%) Community Dependence(40%)

Figure 3: Access and Allocation Model

7.6 The Advisory Process

A public consultation and advisory stage is necessary to complete the process. This would be similar to the current advisory committee process which already exists. It is during this phase that those deemed to have access, in accordance with the model, can discuss and recommend specific fleet allocations. The model would determine who could be granted new access or

additional allocation depending on the type of fishery being discussed and, therefore, who would be involved in these discussions. The advantage of this approach is that it prevents what can be a time consuming, and relatively unproductive, process under the current system; where those who do not have access come to the advisory committees requesting access and those who do voice their opposition to any new requests for access. During the 2001 northern shrimp meeting, the chairman noted that 26 written requests for access were received and 13 verbal presentations were made for new access to this resource (Northern Shrimp Advisory Committee Minutes, 2001). The model proposed in this paper would eliminate many of these requests up front, thereby streamlining the advisory process.

The broad allocations are determined by the model. The increase to a fleet(s) already having access receive a set percentage of the new or increasing allocation and may actually agree amongst themselves on the sharing of that amount. If the existing fleets can not reach a consensus on the split, then the Minister will make the final decision. The provinces/territories with adjacency or proximity would also have a prescribed percentage of the available resource depending on the type of fishery. If more than one province/territory is deemed to be adjacent to a fish stock, then the allocation to each province/territory based on these criteria is equal. For example, if the stock management unit is 4RST, from Table 1 it is determined that Quebec, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador are all adjacent. Therefore 20% of the allocation available under adjacency goes to each adjacent province. Basically through this process a province/territory is either adjacent or not, the concept that one province is more adjacent than another would not be entertained.

The provincial or territorial governments would play a lead role within the advisory process in determine the access and allocations associated with the adjacency and proximity criteria. They would propose to the advisory committee who would have access to that percentage. They may choose to use the same criteria as the model, such as adjacency, for their recommendation. For example, if the fishery occurs in 3L, the province, in this case Newfoundland and Labrador may recommend fleets in 3L be granted access because they are adjacent.

The province(s)/territory may, however, choose to promote other criteria such as mobility and economic viability to address significant issues within the industry of that particular province(s)/territory. A fleet that lacks the mobility to take advantage of opportunities in offshore areas, may be granted access and allocation to an available resource in areas which they can practically harvest. When the viability of a particular fleet hinges on access to a new resource, or additional allocation of an existing resource then a compelling argument can be made from within the adjacent province(s)/territory for access for that particular fleet. Conversely, the province(s)/territory may simply recommend increases to the existing fleets currently with access.

The advisory committee could support or not support the recommendation from the province/territory, when it forwards its advice. The final decision on any new entrants and their allocation would still rest with the Minister of Fisheries and Oceans. The Minister, however, could only grant access or allocation to any interest which qualifies through the model for that particular type of fishery.

7.7 Examples of How the Model Works

The following are examples of how the model and advisory process would work using different types of fisheries and circumstances which exist in Atlantic Canada.

Example 1 3NOPs 4VWX 5Z - Atlantic Halibut.

The Atlantic halibut stock in the southern waters of Atlantic Canada is widely distributed. The management unit, therefore, includes the area 3NOPs4VWX5Z. Should a large increase in this resource occur and additional access be contemplated, the proposed approach would proceed according to the following steps:

Step 1: Determine type of fishery

→expanding/existing fishery with adjacency.

- Step 2:** **Insert into the model for access and broad allocation:**
- Those adjacent 60%
 - Historical participants 20%
 - Community dependence 20%
- Step 3:** **Determine adjacent province(s)/territory (from Table 1)**
- Newfoundland and Labrador (3Ps)
 - Nova Scotia (4WX)
 - New Brunswick (4X)
- Step 4:** **Determine the historical participants**
- Nova Scotia - inshore/midshore
 - Newfoundland and Labrador - inshore/offshore
 - New Brunswick- midshore
- Step 5:** **Establish advisory committee**
- Province of Newfoundland and Labrador
 - Province of Nova Scotia
 - Province of New Brunswick
 - Fleets who historically participate
 - Community groups with historic dependence
- Step 6:** **Recommendation from the advisory committee to Minister on the:**
- Allocation of the 20% increase to existing fleet
 - Allocation of the 20% increase to protect community dependence
 - Allocation of the 20% increase to each of the three adjacent provinces
- Step 7:** **Minister's Decision**

Example 2. Jellyfish - Gulf of St. Lawrence

A new fishery for jellyfish in the Gulf of St. Lawrence develops. The distribution of the stock covers the entire Gulf of St. Lawrence (4RST). The model works as follows:

Step 1: Determine type of fishery

→New fishery with adjacency

Step 2: Insert into model for access and broad allocation:

→Those Adjacent (100%)

Step 3: Determine who is adjacent

→Province of Newfoundland and Labrador (4R)

→Province of Nova Scotia (4T)

→Province of New Brunswick(4T)

→Province of Prince Edward Island (4T)

→Province of Quebec (4ST)

Step 4: Determine broad allocation

→Each of the five province would be allocated 20%

Step 5: Establish advisory committee

→All provinces with access

Step 6: Recommendation from advisory committee to the Minister on the:

→Allocation of the 20% to each adjacent province.

Step 7: Minister's decision

Example 3. 3Vs - Quahaug Fishery

A new fishery develops offshore in area 4Vs for Ocean Quahaugs. The model works as follows:

- Step 1: Determine type of fishery**
→New fishery, no adjacency
- Step 2: Insert into model for access and broad allocation:**
→Those closest/proximity (50%)
→Those with historic attachment (50%)
- Step 3: Determine province(s)/territory in proximity (from Table 2)**
→Nova Scotia
- Step 4: Determine those with historic attachment to 4Vs**
→Nova Scotia inshore, midshore and offshore fleets
- Step 5: Establish advisory committee**
→Province of Nova Scotia
→Fleets with historic attachment
- Step 6: Recommendation from advisory committee to Minister on:**
→Allocation of 50% to province with proximity
→Allocation of 50% to fleets with historic attachment
- Step 7: Minister's Decision**

Example 4. Expansion of the offshore crab fishery in 3NO.

There is a significant increase in the existing offshore crab resource in NAFO area 3NO.

- Step 1: Determine type of fishery**
→Expanding existing fishery with no adjacency
- Step 2: Insert into model for access and broad allocation**
→Those in proximity (20%)
→Historic participants (40%)
→Community Dependency (40%)
- Step 3: Determine province(s)/territories in proximity (from Table 2)**
→Newfoundland and Labrador
- Step 4: Determine historical participants**
→Newfoundland inshore and midshore fleets
- Step 5: Determine where community dependency exists**
→With existing harvesters and processors only
- Step 5: Establish allocation advisory committee:**
→Province of Newfoundland and Labrador
→Current fleet with access
- Step 6: Recommendations from advisory committee to the Minister on:**
→Allocation of 40% to existing fleets
→Allocation of 40% to protect dependent communities
→Allocation of 20% to province in proximity
- Step 7: Minister's decision**

Final Decision by the Minister of Fisheries and Oceans



Recommendation on Specific Fleet Allocations



Advisory Committee



Determine Access and Broad Allocation



Insert into Model



Type of Fishery

Figure 4: Flow Chart of the Access and Allocation Decision-Making Process

8.0 Discussion

8.1 Benefits of the Model

Providing access and allocating fish resources, or any resources for that matter, which provides the opportunity for the accumulation of wealth will never be easy. In a region like Atlantic Canada, where some portions of the region are almost exclusively dependent on the fishery, the process is that much more challenging. Further complicating the process is the complexity of the fleet structure and the involvement of five provinces, and the emergence of Nunavut as a territory with expanding fishing interests. Government, as the regulator, must strive to make the process as simple, clear and transparent as possible. The current process is obviously lacking in all of these characteristics.

Current decisions on access and allocation are often considered to be politically motivated (Steele, 1992; Parsons, 1993; Blackwood, 1996). The proposed approach outlined in the previous section, would have the following advantages over the current process:

- The criteria for access are identified and defined more clearly than presented by the IPAC. If criteria are to be applied in a consistent and transparent way, they must be defined. This is perhaps the biggest flaw in the current access and allocation process today.
- The model eliminates, up front, requests from those seeking access who do not meet specific, well defined criteria. One of the most time consuming and unpleasant aspects of the current advisory process in Atlantic Canada fisheries management is the access debate. Quite often application is made without justification due mainly to the fact that there is no mechanism to reject these proposals, except through a decision by the Minister.
- By identifying four types of fisheries where new access can be considered, and suggesting specific criteria for each, the model has the flexibility to address different situations in a

systematic way. Clearly, criteria and weighting have to be different for fisheries in which a history exists, compared to new fisheries in which there is no fishing history.

- Once the type of fishery is identified, “inserting” into the model ensures consistent application of the criteria. The criteria for access in similar circumstances will always be the same.
- The access criteria have been weighted for the purpose of determining allocation percentages. Similarly they will not change for similar types of fisheries.
- There is a clear role for the provincial governments to play in recommending new access and allocation within the province(s)/territory, when that province(s)/territory is deemed to be adjacent or in proximity. The provincial governments have long been seeking a meaningful role, beyond lobbyist, in fisheries management issues which occur within their jurisdiction (Vardy, 1994).
- The use of the model will assist in making the process less political. Only those who meet the criteria outlined in the model can be granted access and the prescribed allocation percentages must be followed.
- There will be less controversy between provinces since the model determines the allocation to each province on a percentage basis for fisheries in their waters.
- The model determines that new access and allocation can be granted to interests from a particular province or territory based on adjacency or proximity. The advisory committee can recommend who receives this new access and allocation, however, the final decision remains with the Minister of Fisheries and Oceans, but these decisions must remain within the framework of the model.

8.2 Challenges for the Model

Due to the rather complex nature of the Atlantic Canadian fishery, there are some issues which need to be dealt with prior to the implementation of this model. One such issue occurs when dealing with the expansion of existing fisheries. In such fisheries a decision has to be made regarding what constitutes a "substantial increase" to trigger the application of the model. Minor increases which do not justify any changes to the current sharing arrangements could be dealt with through the advisory process, however, determination of when to introduce the model is a key question.

There are alternatives for determining when new access should be considered. One possible solution is a species approach. This would involve determining, for each major commercial species, a percentage increase which would trigger the implementation of the model. For example, for shrimp stocks, an increase in the TAC of 30 percent from the historical level could result in application of the model. Such an approach could actually result in fewer demands for large increases in TACs and thus the model acts as a conservation tool.

The difficulty of using the percent approach would be that in existing fisheries with small TACs, the model could be triggered by small increases. Perhaps a more suitable approach for these fisheries is to establish a threshold TAC for each existing commercial fishery, below which no changes in current access and allocation occur. Once the threshold is achieved the model is triggered to deal with access and allocation of the TAC above that threshold. A federal/provincial working group could be tasked with establishing these threshold levels. This type of arrangement was used in the 1970s and 1980s for access to Gulf of St. Lawrence redfish for vessels outside the Gulf (Parsons, 1993).

In new fisheries with adjacency the model credits the adjacent province with 100% of any TAC in this type of fishery. This could limit the potential for development or exploratory work by fleets from other province(s)/territory, that may be interested in that resource. The DFO can deal with this situation through its existing Emerging Fisheries Policy. Development work could

only proceed with the approval of the adjacent province(s)/territory. The province(s)/territory may see some benefit to proceeding with the development work and agree to a certain percentage being allocated to an interest outside that province, in exchange for proceeding with the development activity.

A similar problem could arise in new fisheries with no adjacency. An allocation of ocean quahaug to the inshore sector, for example, could result in lost opportunity as this fleet may not have the interest nor the capability to harvest this resource. A number of possibilities exist to deal with such situations. If the quahaug fishery is developed to the point where access and allocation decisions are required then obviously the necessary exploratory, scientific and experimental work has already occurred. The inshore could receive its allocation and simply transfer it to another sector, which is already actively involved in this particular fishery. Alternatively, given the inshore has no history in this type of fishery, has not been involved in the pre-commercial development of the fishery and appears to have neither the interest nor the capability to harvest this resource, the Minister could grant this fleet's share of the allocation to the sector which did the initial development work. This could only occur with the approval of the fleets and provinces involved.

Another possibility is to allow a fleet, which was not involved in development but qualifies through the model for access and allocation, a defined period of time to demonstrate an ability to harvest this resource, prior to it being permanently transferred to an active fleet in the fishery.

Perhaps a combination of these three could work to resolve this situation. These types of issues should be dealt with in an advisory stage prior to the implementation of the model into fisheries management policy.

The model may not be applicable for access and allocation when it comes to small localized fisheries for species such as whelk, sea urchins and seaweed. If a new fishery for such a species were to develop, for example along the north shore of P.E.I., the model would determine that all

provinces adjacent to 4T be granted access, if 4T is the management unit. This would mean that fleets from Nova Scotia, New Brunswick and Quebec would also be awarded access and allocation which in turn could easily lead to overcapitalization and/or overexploitation. The management units for these fisheries should be, and often are, geographically smaller than the NAFO areas, to ensure that conservation of the resource remains the priority and goal of the process.

Pelagic species, particularly large pelagics such as tuna and swordfish, often create unique difficulties when dealing with access and allocation. These species, due to their highly migratory nature, are not managed by specific geographical units, but on an Atlantic-wide basis. The migration tract of these species is generally well known in Atlantic Canada. Therefore, adjacency or proximity would be based on the NAFO areas through which the fish travels.

The application of this model would require that the types of issues raised in this section be discussed widely prior to its implementation into the Canadian fisheries management system, and where possible decisions made on how to proceed when such circumstances arise.

9.0 Conclusion

Most resource allocation decisions appear to be based on subjective criteria rather than analytical frameworks (Parsons, 1993). The Independent Panel on Access Criteria noted the “current definition of access criteria is open to wide and divergent interpretation” and “the process of decision making regarding access has often been characterized by a lack of transparency, consistency and perceived fairness!” (IPAC, 2002: p.65). Clearly the current process surrounding access and allocation is in desperate need of change.

The IPAC was given the opportunity to address this difficult issue. Unfortunately, while acknowledging the importance of clarity of definition and consistency, the Panel found the following conclusions inescapable:

- *Definitions of the traditional access criteria, regardless of how carefully crafted, must necessarily retain a considerable degree of elasticity.*
- *No single criterion or set of criteria can automatically and uniformly be applied to the many circumstances in which access issues arise.*
- *It is impossible to assign weights to the various criteria that would be applicable in all circumstances.*
- *No single criterion, set of criteria or assigned ranking would be universally acceptable (IPAC, 2002: p. 48-49).*

As a result of these conclusions, IPAC failed to fully provide the necessary framework to address several of the very issues it identified as problematic.

The approach presented in this paper addresses the issues identified as the major sources of difficulty with the current access and allocation approach in Atlantic Canada, while at the same time it strives to incorporate some of the existing mechanisms, such as the advisory process. Perhaps, most importantly, it does not alter the ultimate decision making authority of the Federal Minister of Fisheries and Oceans when it comes to granting new access and allocation of

fisheries resources. Such decisions, however, must occur within an established framework which provides the transparency and consistency that those involved in the management process are seeking.

A clear and binding fisheries policy is needed in any case to discourage politically-expedient, short-term decisions and to provide industry with government's vision of the fishery of the future as an aid to personal and business planning (Kenchington, 1998).

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Appendix A

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NR-HQ-00-79E

DHALIWAL ANNOUNCES INCREASED TURBOT ALLOCATION AND STAFF FOR NUNAVUT IN 2001

August 16, 2000

IQALUIT – The Honourable Herb Dhaliwal, Minister of Fisheries and Oceans, today announced that Nunavut will receive all of the Canadian quota of turbot recommended by the Northwest Atlantic Fisheries Organization (NAFO) Scientific Council in the Davis Strait (Division 0A) next year.

The Scientific Council has recommended an additional TAC be implemented for the offshore area of Divisions 0A+1A with a catch of up to 4,000t in 2001 (see attached [map](#)). The quota for Division 0A will be established separately from NAFO Division 0B, which is traditionally fished by Nunavut interests as well as fishermen from other provinces. Turbot in Divisions 0A and 0B will be managed as separate units in 2001.

Since 1996, Nunavut interests have conducted an exploratory fishery in Division 0A with a maximum harvest level of 300 tonnes. This additional quota will permit the Nunavut to expand the current exploratory fishery.

"I am very pleased to provide Nunavut fishers with increased fishing opportunities to harvest turbot next year," Mr. Dhaliwal said. "This allocation will be over and above current allocations to Nunavut interests in Division 0B in 2001. The 5,500 tonnes, which are available in the southern part of this area, will not be affected by this new quota nor will the historical interests of the other parties who currently fish there."

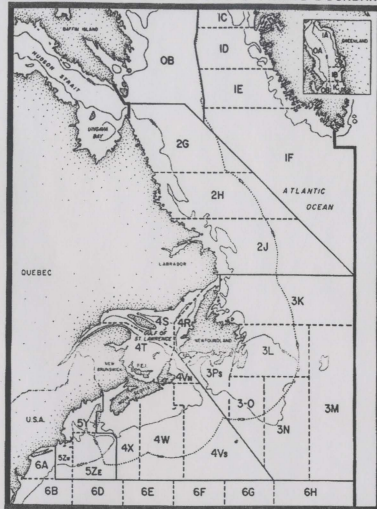
Bilateral discussions with Greenland will be undertaken later this year to determine the sharing arrangement of the 4,000t of turbot for Divisions 0A and 1A for 2001. Sub-area 0A is in Canadian waters and 1A is in Greenland waters.

"Providing Nunavut with 100% of the Canadian allocation in 0A next year will permit the continuation of the exploratory fishery on an expanded basis," Mr. Dhaliwal added. "As the NAFO Scientific Council has noted, the relationship between Greenland halibut in both 0A and 1A, and other areas of Sub-Area 0 and 1 is unknown and needs to be thoroughly investigated."

Canada and Greenland are currently partnering a survey, to be completed in 2001, to study the turbot biomass in the north. Information from the expanded exploratory fishery and the survey will assist in determining the relationships of turbot in the various Divisions in the north.

"With this new fishing opportunity, I am also pleased to announce a 25% increase in DFO staff in Nunavut. The additional resources will contribute to the effectiveness of DFO programs and initiatives, including the development of new and existing fisheries," Mr. Dhaliwal added. DFO staff levels in Nunavut will increase from 12 to 15 employees in 2001.

200 MILE FISHING ZONE AND NAFO FISHING BOUNDARIES



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NR-HQ-00-37E

DHALIWAL ANNOUNCES MODEST INCREASE IN NORTHERN SHRIMP QUOTA

June 15, 2000

OTTAWA – The Honourable Herb Dhaliwal, Minister of Fisheries and Oceans, today announced the new three year management plan (2000-2002) for the Northern Shrimp fishery. This plan will replace the existing three year plan which expired in 1999, and is highlighted by an 8,000t increase in Total Allowable Catch (TAC) for 2000 which will enable additional temporary access to the fishery.

The overall TAC for 2000 will be increased to 110,052 tonnes (t) from 102,052t in 1999. The TAC for Shrimp Fishery Area (SFA) 6 will be increased by 3,000t to 61,632t in 2000, while the TAC in the remainder of the SFAs will maintain their 1999 quotas. Additional fishing opportunities will be available in Division 3L, in accordance with the decision of the Northwest Atlantic Fisheries Organization (NAFO) to establish a quota of 6,000t, 5,000t of which is for Canadian fishers and 1000t for other NAFO members outside of 200 miles. The quotas respond to advice from the Northern Shrimp Advisory Committee (NSAC).

"The northern shrimp biomass has been very high and stable over the past several years and the fishery continues to be an abundant and lucrative one for Atlantic Canadians," Mr. Dhaliwal said. "However, while the scientific evidence allows for a small increase in quotas, current environmental conditions, such as warming water temperatures, could lead to decline in abundance in the future. Therefore, we are taking a cautious approach by modestly increasing the quota. We will be reviewing harvest levels each year to ensure the sustainability of the resource for future generations."

The scientific assessment for 2000 indicates that the stock in SFA 6 continues to be healthy and abundant with good recruitment prospects; thus permitting a modest increase in this area. In the remaining areas, the indices are generally favourable but future prospects are uncertain; accordingly, there will be no change in quota levels for the 2000 season.

Since 1996, the abundance of northern shrimp and the value of the fishery have more than doubled. TAC's have increased from 37,600t in 1996 to current levels in excess of 100,000t, enabling the addition of inshore fishers in Newfoundland and Quebec and expanded opportunity to benefit from the wealth of this abundant resource. In 1999, these fishers and the coastal communities in which they live shared in the total landed value of the fishery of \$280 million.

"We have received 17 requests from all Atlantic provinces and Quebec for access to the northern shrimp fishery," Mr. Dhaliwal said. "Dividing the benefits of a valuable resource among competing interests is always controversial. I am satisfied that this is a fair and reasonable distribution of a Canadian resource to all Canadian fishermen."

Consistent with NAFO, a 5,000t quota will be available to Canada within NAFO Division

3L. The Minister has decided that it will be allocated as follows: 2,500t will be fished by existing inshore licence holders and 1,000t will go to offshore participants in the northern shrimp fishery. The remaining 1,500t will be provided to a consortium of PEI fishers and processors as a temporary northern shrimp allocation.

PEI is the only Atlantic province without access to the northern shrimp fishery. An allocation of 1,500t will allow the PEI fishing industry to have access to this resource and to harvest northern shrimp, for the first time ever, since the opening of this fishery in 1978. The allocation of 1,500t to a consortium of PEI fishers and processors will provide funds for professionalization of fishers to build their capacity to take on a larger role for the management of their fisheries. It will also provide funding to augment shellfish research, which will benefit all Atlantic Canada and Quebec. In addition, this allocation will make funds available to processors to aid in market development and promotion of PEI seafood products.

"Over the past 20 years, fishermen in all of the Atlantic provinces except PEI have enjoyed the benefits of this very lucrative fishery," Mr. Dhaliwal said. "This year, for the first time since the opening of this fishery, PEI fishermen will also be able to enjoy some of these benefits. Given that 20,000t of last year's total quota was not harvested, providing temporary access to this resource to new entrants while abundance is high makes sense."

With respect to SFA 6, principles adopted in the last three year plan for allocation of temporary access to quota increases will again be applied in 2000. Of the 3,000t increase in SFA 6, temporary allocation of 1,500t will be provided to the Innu Nation of Labrador, a temporary allocation of 1,000t will be provided to Fogo Island Co-op and a temporary 500t allocation will be provided to adjacent inshore licence holders. Therefore, all of the increase in SFA 6 is provided to adjacent fishermen or fishermen in Newfoundland and Labrador. The 1,500t allocation to the Innu Nation responds to their long-standing request, which is supported by NSAC, for increased access to northern shrimp. Currently, the Innu receive only 510t of the overall TAC.

As a result of the allocation of this 8,000t increase in 2000, Newfoundland will maintain the 70% share of the harvest they received in 1999.

In accordance with the principles developed in consultation with industry in 1997, access to the increased quota will be provided on a temporary basis. This ensures that there will be no permanent increase in harvesting capacity. Should there be a need to lower quota levels in the future, the removal of access privileges will be based on the "last in, first out" principle, as is the case in all fisheries. Since 1997, all new access has been provided on a temporary basis.

As recommended by NSAC, allocations that are not caught will be reallocated only with the agreement of the fleet involved. However, should large quantities of allocated quotas remain uncaught, a meeting of NSAC may be convened in the fall to discuss reallocation. In 1999, about 20,000t of quota were left in the water, including about 7,000t of quota assigned to temporary entrants in SFA 6.

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140	THE NORTHERN SHRIMP FISHERY: HISTORY AND EVOLUTION
141	MAP AND CHARTS

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